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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,108	07/14/2003	Malcolm Muir	84873.000014	5809

23387 7590 06/16/2005

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EXAMINER

KYLE, MICHAEL J

ART UNIT PAPER NUMBER

3677

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,108

Applicant(s)

MUIR, MALCOLM

Examiner

Michael J. Kyle

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 5-10 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 10 and 14 is withdrawn in view of the newly discovered reference(s) to Wu (U.S. Patent No. 6,442,898) and Brain et al (U.S. Patent Application Publication 2003/0213100). Rejections based on the newly cited reference(s) follow.

Claim Objections

2. Claim 14 is objected to because of the limitation "the end cap" in the second from last line of the claim. An "end cap" has not been previously provided for in the claim. Examiner suggests changing this to --an end cap--.
3. Claim 16 is objected to because of the limitation "the extended portion". Examiner believes this should be --the support extension--, in order to be consistent with the claim terminology used in claim 15, from which claim 16 depends.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 10 and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Wu (U.S. Patent No. 6,442,898). With respect to claims 10 and 15, Wu discloses a track (30) having a

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width, a support extension (40) with a planar bearing surface attached to the track, a first link (35) pivotally attached to the support extension, and a second link (34) pivotally attached to the support extension at a second pivot point. The bearing surface underlies a length of the first and second links in the closed position. Wu further discloses a shoe (31) slidably engaging the track, a sash bar (33) pivotally attached to the first link, and a strut (32) attached to the sash bar, second link, and shoe. The support extension is an integral monolithic piece. The bearing surface of the support extension underlies at least one half of a length of the first link.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu.

With respect to claims 5 and 6, Wu discloses a hinge assembly including an elongate track (30), a support extension (40) connected to the track and having a planar bearing surface (outer surface of 40), and an end cap (see left side of figures 8 and 9). Wu also discloses a first link (35) and a second link (34), both pivotally attached to the support extension (40). A first pivot point associated with the first link is between the end cap and a second pivot point associated with the second link. Wu further discloses a sash bar (33) attached to the first link, a strut (32) attached to the sash bar, and a shoe (31) slidably engaged in the track. The bearing surface underlies at least a portion of the second link in the closed position. Examiner considers the end

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cap to be integral with the support extension because the entire hinge assembly is all one piece when completely assembled. The bearing surface underlies a majority of, but not the entire length of the first link, as claimed. However, it is considered within the level of one having ordinary skill in the art to adjust the length of support extension, as it appears no new or unexpected result is produced from such a modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to lengthen the support extension of Wu, as such a modification brings about no new or unexpected result.

8. With respect to claims 7 and 8, the Wu discloses the sash bar to disposed generally perpendicular to the longitudinal dimension of the track (see figure 9). Additionally, the first link includes a tab (311) and the second link includes a recess (aperture in which 311 is located).

9. With respect to claim 16, Wu shows the bearing surface of the support extension to underlie at least a portion of the second link (34), but does not specifically disclose the bearing surface to underlie at least one half of the length of the second link, as claimed. However, it is considered within the level of one having ordinary skill in the art to adjust the length of support extension, as it appears no new or unexpected result is produced from such a modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to lengthen the support extension of Wu, such that the bearing surface of the support extension underlies at least one half the length of the second link, as such a modification does not bring about a new or unexpected result.

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10. Claims 8, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Stavenau et al ("Stavenau", U.S. Patent No. 3,838,537). Wu fails to disclose the first and second link to include cooperating members or a tab and recess arrangement that engage one another. Additionally, Wu does not disclose the first and second links to include contacting surfaces engaging each other to form a stop.

11. Stavenau teaches a window hinge comprising a track (38) with first and second links (40, 74). First link (40) and second link (74) include cooperating members (80, 82, respectively) which comprise a tab (each gear tooth) and a recess (area between gear teeth). The last gear tooth and respective recess along the circumference of each link engage one another to form a stop. Stavenau uses this arrangement so that an application of an opening force at one edge of the window sash has the effect of also moving the opposite edge of the window sash away from the window frame without damaging the weather stripping (column 1, lines 42-52). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the first and second links of Vetter to include the gear members taught by Stavenau for the reasons cited by Stavenau in column 1, lines 42-52.

12. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Brain et al ("Brain", U.S. Patent Application Publication 2003/0213100). Wu discloses a hinge assembly including an elongate track (30), a support extension (40) connected to the track and having a planar bearing surface (outer surface of 40), and an end cap (see left side of figures 8 and 9). Wu also discloses a first link (35) and a second link (34), both pivotally attached to the support extension (40). A first pivot point associated with the first link is

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between the end cap and a second pivot point associated with the second link. Wu further discloses a sash bar (33) attached to the first link, a strut (32) attached to the sash bar, and a shoe (31) slidably engaged in the track. The bearing surface underlies at least a portion of the second link in the closed position. Wu discloses an end cap, (see left side of figures 8 and 9), but does not disclose the end cap to have a collection surface described by a curve with a continually varying first derivative, or a dimension of the end cap along the longitudinal direction increases with an increasing distance from the center line. Examiner considers the end cap to be integral with the support extension because the entire hinge assembly is all one piece when completely assembled.

13. Brain teaches hinge assembly comprising an elongate track (1), first and second links (9, 13), a sash bar (7), a strut (11), and an end cap (59). The end cap has a collection surface described by a curve with a continually varying first derivative, and a dimension of the end cap along the longitudinal direction increases with an increasing distance from the center line. This structure helps to pull in the vent as it closes (paragraph [0032]). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Wu's end cap as taught by Brain in order to help pull in the window or vent as it closes.

Allowable Subject Matter

14. Claim 11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claims 1-4 are allowed.

Response to Arguments

16. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection. All rejected claims are now rejected by Wu, or a combination based on Wu.


Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Kyle whose telephone number is 571-272-7057. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk


ROBERT J. SANDY
PRIMARY EXAMINER